White Paper

The Truth About Wireless Slates in Differentiated Classrooms

Using wireless slates with or without interactive whiteboards

Introduction

From time to time people ask us whether they should purchase wireless slates* instead of interactive whiteboards. The question arises because, for many budget-conscious school districts, the accessible price of wireless slates allows them a certain appeal as stand-alone devices. The answer, however, is not as straightforward as the question. Wireless slates can be used with or without interactive whiteboards, and each combination has a different effect on teaching and learning. Before making any purchase decisions, it is important, therefore, to understand the classroom needs being served by these two products and the effects of using them together or alone.

Using Wireless Slates with Interactive Whiteboards

Interactive whiteboards and wireless slates support a variety of instructional methodologies, the most significant of which have emerged from constructivist schools of thought. Of particular interest today is differentiated instruction, which is a flexible combination of whole-class, group and individualized learning. Critical to this model of pedagogy is grouping and regrouping students based on subject, student readiness, talents and prior knowledge. In such an environment, teachers need to respond to shifting classroom dynamics as lessons proceed and needs are identified. During the course of a class or a day, many groups may be formed, disbanded and reformed, and group work is often shared. The role of technology in helping to create this kind of responsive environment is critical.

In technology-enabled classrooms, teachers use both interactive whiteboards and wireless slates to shift easily between whole-class, small group and individualized instruction and assessment, while maintaining access to digital learning materials from anywhere in the room. Student participation is also easily encouraged. Wireless slates and interactive whiteboards give teachers and students flexibility and mobility options that would not otherwise be available. The interactive whiteboard can be used to review introductory concepts with the whole class, while the wireless slate can be used by both teachers and students in group work as students explore the subject at hand in more detail. Wireless slates can facilitate coaching within groups and help groups demonstrate their understanding or apply their knowledge.

For example, a teacher can introduce the concept of multiplying fractions on the interactive whiteboard and then have students tackle equations on their own as the teacher moves around the

* Designed primarily for use with interactive whiteboards, the wireless slate has an input surface that matches input points on a corresponding interactive whiteboard. When users move a pen over the slate, the movement is precisely mirrored on the interactive whiteboard.

room, approaching those who appear to be struggling. From the student's side, the teacher can further explain a concept, using the slate to make notes on the interactive whiteboard or passing the slate to the student for a more hands-on experience. Should a recurring problem be identified, the teacher can shift back to whole-class instruction, using the slate to direct the class's attention to the interactive whiteboard or returning to the front of the room to use the board.

Mobility, flexibility and access to digital content also help teachers quickly assess student progress. When individual assessment does not interfere with whole-class activity, teachers feel free to gauge learning more frequently and use that information to shape the lesson.

Students with limited mobility or who are simply uncomfortable standing in front of the class can use the slate to manipulate images, words and objects on the interactive whiteboard. Some children feel uncomfortable at the front of the room, and the wireless slate can offer them a way to take part in class work that feels more suited to their personality or degree of comfort.

Using Wireless Slates as Stand-Alone Devices

Given contemporary budget constraints faced by many school districts, the accessible price of wireless slates makes them attractive as stand-alone devices. They function easily with a projected computer image, enabling teachers and students to control applications and write over text and images from anywhere in the room. In the differentiated classroom, teachers and students still benefit from the mobility and flexibility this product introduces. A wireless slate also comes bundled with whiteboarding software, so digital content can still be accessed and incorporated into lessons and student work.

Schools choosing this option do so most frequently as a first step toward creating a technology-enabled, differentiated classroom. In such a scenario, the teacher may have access to a wireless slate, a teacher computer, perhaps some student computers and a projector. The typical integration path is to add, over time and as budgets allow, an interactive whiteboard, an interactive response system, computing devices for every student, an audio enhancement system and more digital content. Some districts purchase interactive whiteboards first and wireless slates later because they want to focus more on the whole-class component of differentiated instruction. In either case, the farther along the integration path, the easier it becomes for teachers to shift between instructional modes and better address the needs of each student.

Best Practices in the Technology-Enabled Classroom

Teachers report that wireless slates and interactive whiteboards are not simply nice additions to the differentiated classroom. When fully integrated, they provide an order-of-magnitude increase in teachers' ability to shift seamlessly and frequently between whole-class, group and individual instruction, which makes the possibility of reaching each student more realistic. These tools are not just supporting the instructional approach – they are increasingly helping to define the very nature of the classroom experience, especially for millennial and neomillennial students who are used to shifting directions frequently, sifting through large amounts of data and finding their own path toward learning.

A sixth-grade teacher may, for instance, want to introduce famous people who have had an impact on the world. The teacher may discuss Neil Armstrong and Roberta Bondar with the entire class, talking about what motivated them to become astronauts and how they affected our understanding of the

world. Then the teacher may break the class into groups, asking them to identify a famous person and describe what made that person famous.

Each group may have a laptop or other handheld device for Internet access and research, and a wireless slate for working virtually at the interactive whiteboard as they prepare a presentation for the class. Accessing a variety of digital content and other resources available with their whiteboarding software or on the Internet, students create presentations that suit their particular interests, abilities and learning styles.

While students work, the teacher may easily check in to assess where they are at, sometimes using the wireless slate to explain more about a particular concept or to direct them to other resources. When it comes time to share with the class, the student presenter may use the slate to present from the relative comfort of the group's location or go to the front of the room to use the interactive whiteboard. The teacher may then guide a discussion about the characteristics that these famous people share, writing down responses and ideas on the interactive whiteboard.

Other technology may also be present to assist the teacher. Interactive response systems have shown themselves to be useful in differentiated classrooms because they allow teachers to quickly assess student understanding and adapt the progress of the lesson based on immediate, quantifiable feedback from every student in the room. Audio enhancement systems are also helping to address issues created by varying degrees of hearing loss in a generation of plugged-in students.

In this context, then, technology has provided access to a wide variety of research material and digital content, facilitated students' exploration of new ideas, made transitions between whole-class and group instruction smooth, allowed students varied means of expression in groups and presentations and made it simpler for the teacher to monitor understanding and adjust guidance as needed. If differentiated instruction is all about creating a responsive instructional environment that supports each student's path toward learning, then technology in the classroom is about giving teachers the means and flexibility to achieve it.

If you are determining whether you should purchase wireless slates instead of interactive whiteboards, it is important to understand the typical technology integration path and the effects your choice will have on teaching and learning. When used alone, wireless slates can provide access to digital content from anywhere in the room and facilitate individual and group instruction. Interactive whiteboards enable whole-class instruction. The two together create a responsive classroom dynamic ideally suited to the goals of differentiated instruction. Which product or products you should choose will depend on your technology adoption plan, budget and the results you want to achieve in the classroom, now and over time.

Heightening the Energy of Learning

Teachers in both primary and secondary schools appreciate that classrooms with interactive whiteboards and wireless slates have a different sort of energy than those without. In these classrooms, students are interested, eager and involved. Teachers are rewarded with the satisfaction that comes from seeing students learn with intensity and passion. But teachers know that each student must follow a different path toward that passion.

Hundreds of thousands of teachers around the world have come to depend on the SMART Board™ interactive whiteboard as a vital tool for engaging students, and many now rely on the wireless slate to facilitate differentiated instruction. The wireless slate gives teachers the freedom to move from the front of the class to the student's side and back again, assessing and assisting until everyone understands. Students, in turn, find freedom in interacting virtually with the interactive whiteboard from anywhere in the room.